

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)
and Regulation (EU) No 2015/830

ORP Solution +475mV

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Redox potential solution +475mV

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: calibration solution

1.3 Details of the supplier of the safety data sheet

Company name: HORIBA UK Limited
Street/POB-No.: Kyoto Close, Moulton Park,
Postal Code, city: Northampton, NN3 6FL,
United Kingdom

1.4 Emergency telephone number

HORIBA UK Limited | Kyoto Close, Moulton Park, Northampton NN3 6FL, United Kingdom
Tel: +44 1604 542600 | Fax: +44 1604 542695

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

Classification according to Directive 67/548/EEC or 1999/45/EC

This preparation is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements:



.GHS05 Danger, Corrosive

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P390 Absorb spillage to prevent material damage.

2.3 Other hazards

No risks worthy of mention.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Mixture of inorganic salts in aqueous solution with dyestuff.

Ingredient	Designation	Content	Classification
CAS: 7783-85-9 EINECS: 233-151-8	Ammonium iron(II) sulfate hexahydrate	4 – 4,5 %	Eye Irrit. 2; H319. STOT SE 3 H335, Skin Irrit. 2 H315
CAS: 10025-77-1 EINECS: 231-729-4	Iron(III) chloride	3 – 3,5 %	Acute Tox. 4 H302, Skin Corr. 1B H314

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation: Move victim to fresh air. In case of respiratory difficulties seek medical attention.

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Following skin contact: Remove residues with water. Remove contaminated clothing.
In case of skin reactions, consult a physician.

After eye contact: With eyelids open, wash out eyes for several minutes under flowing water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth and drink large quantities of water.
After ingestion of high quantities: Induce vomiting.
If you feel unwell, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours.

5.3 Advice for firefighters

Special protective equipment for firefighters:

In case of surrounding fires: Cool down with water jets the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

EQUIPMENT

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or the self (self-protector) in the event of large quantities of foam.

Additional information:

Hazchem-Code: -

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate the area before working. Remove people not involved and wear proper protective equipment mentioned in item 8.

6.2 Environmental precautions

Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.
Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed. Store at room temperature.

Storage class:

12 = Non-combustible liquids

7.3 Specific end use(s)

Buffer solution, calibration solution

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection:

Respiratory protection must be worn whenever the WEL levels have been exceeded.
Provide adequate ventilation..

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Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures: Change contaminated clothing.
Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Form: liquid
Colour: yellow/brown
characteristic

Odour: no data available

Odour threshold: no data available

pH value: no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: approx. 100 °C

Flash point/flashpoint range: no data available

Evaporation rate: no data available

Flammability: no data available

Explosion limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Density: at 20 °C: approx. 1.0 g/mL

Water solubility: at 20 °C: completely miscible

Partition coefficient: n-octanol/water: no data available

Auto-ignition temperature: no data available

Thermal decomposition: no data available

Viscosity, kinematic: no data available

Explosive properties: no data available

Oxidizing characteristics: no data available

9.2 Other information

Additional information: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

refer to 10.3

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

metals

10.6 Hazardous decomposition products

Thermal decomposition: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: AMMONIUM IRON(II) SULFATE HEXAHYDRATE
LD50 (Oral): 3250 mg/kg rat
IRON(III) CHLORIDE
LD50 (Oral): 900 mg/kg rat

SECTION 12: Ecological information

12.1 Toxicity

Further details: in surface waters may give:
1336-21-6 Ammonium hydroxide solution
LC50 aq. : (96h pH> 8) from 0.2 to 4 mg / l (fish).

12.2. Persistence and degradability

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Further details: no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

General information: Do not allow to enter undiluted resp. in large quantities into surface water or into drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 06 03 14 = Solid salts and solutions, which contain neither heavy metals nor cyanides

Recommendation: Reuse, when possible. The product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorized waste management firm, in compliance with national and local regulations..

Contaminated packaging

Waste key number: 15 01 02 = Plastic packaging

Recommendation: Dispose of waste according to applicable legislation.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:
not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:
not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:
not applicable

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations - Great Britain

Hazchem-Code: No data available

National regulations - USA

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: B

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	B

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

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SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H314 = Causes severe skin burns and eye damage.

H319 = Causes serious eye irritation.

H315 = Causes skin irritation.

H335 = May cause respiratory irritation.

Date of first version: 01/03/2017

Date of revision: 30/05/2017

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.